



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/081,857	02/20/2002	Ivan Jesus Fernandez-Corbaton	020125	3856
23696	7590	10/28/2005	EXAMINER	
QUALCOMM, INC 5775 MOREHOUSE DR. SAN DIEGO, CA 92121			PANWALKAR, VINEETA S	
			ART UNIT	PAPER NUMBER
			2631	

DATE MAILED: 10/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Notice of Abandonment

Application No.

10/081,857

Applicant(s)

FERNANDEZ-CORBATON ET AL.

Examiner

Vineeta S. Panwalkar

Art Unit

2631

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

This application is abandoned in view of:

1. ☐ Applicant's failure to timely file a proper reply to the Office letter mailed on _____.
 - (a) ☐ A reply was received on _____ (with a Certificate of Mailing or Transmission dated _____), which is after the expiration of the period for reply (including a total extension of time of _____ month(s)) which expired on _____.
 - (b) ☐ A proposed reply was received on _____, but it does not constitute a proper reply under 37 CFR 1.113 (a) to the final rejection.
(A proper reply under 37 CFR 1.113 to a final rejection consists only of: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114).
 - (c) ☐ A reply was received on _____ but it does not constitute a proper reply, or a bona fide attempt at a proper reply, to the non-final rejection. See 37 CFR 1.85(a) and 1.111. (See explanation in box 7 below).
 - (d) ☐ No reply has been received.
2. ☐ Applicant's failure to timely pay the required issue fee and publication fee, if applicable, within the statutory period of three months from the mailing date of the Notice of Allowance (PTOL-85).
 - (a) ☐ The issue fee and publication fee, if applicable, was received on _____ (with a Certificate of Mailing or Transmission dated _____), which is after the expiration of the statutory period for payment of the issue fee (and publication fee) set in the Notice of Allowance (PTOL-85).
 - (b) ☐ The submitted fee of \$_____ is insufficient. A balance of \$_____ is due.
The issue fee required by 37 CFR 1.18 is \$_____. The publication fee, if required by 37 CFR 1.18(d), is \$_____.
 - (c) ☐ The issue fee and publication fee, if applicable, has not been received.
3. ☐ Applicant's failure to timely file corrected drawings as required by, and within the three-month period set in, the Notice of Allowability (PTO-37).
 - (a) ☐ Proposed corrected drawings were received on _____ (with a Certificate of Mailing or Transmission dated _____), which is after the expiration of the period for reply.
 - (b) ☐ No corrected drawings have been received.
4. ☐ The letter of express abandonment which is signed by the attorney or agent of record, the assignee of the entire interest, or all of the applicants.
5. ☐ The letter of express abandonment which is signed by an attorney or agent (acting in a representative capacity under 37 CFR 1.34(a)) upon the filing of a continuing application.
6. ☐ The decision by the Board of Patent Appeals and Interference rendered on _____ and because the period for seeking court review of the decision has expired and there are no allowed claims.
7. ☒ The reason(s) below:

See Continuation Sheet

TESFALDET BOCURE
PRIMARY EXAMINER

Petitions to revive under 37 CFR 1.137(a) or (b), or requests to withdraw the holding of abandonment under 37 CFR 1.181, should be promptly filed to minimize any negative effects on patent term.

Item 7 - Other reasons for holding abandonment: Due to double patenting rejection based on co-pending application 10/115,210, applicants stated that application 10/081,857 has been abandoned on the last two lines of page 11 and first line of page 12 of the Remarks document (attached herewith) submitted as the amendment to co-pending application 10/115,210. This notice of abandonment is being mailed based on a telephone conversation with applicants' representative, Mr. Larry Moskowitz (Reg. No. 42,911) on Oct 26, 2005, confirming applicants' intention to not file a response to case 10/081,857..

REMARKS

Claims 1-47 are pending in the present application. Claims 1, 3, 12, 15, 24, 25, 29, 31, 33, 39 and 42 have been amended. Claims 4, 16, 26, 34 and 43 have been canceled without prejudice. Applicant believes these amendments to the claims add no new matter to the application and are fully supported by the original disclosure.

In the Office Action mailed July 7, 2005, the Examiner provisionally rejected claims 1-5, 7-17, 19-27, 29-35, 37-44, 46 and 47 as claiming the same invention as that of claims 1-5, 7-17, 19-28, 30-36, 38-45, 47 and 48 of copending Application No. 10/081,857. The Examiner provisionally rejected claims 6, 18, 28, 36 and 45 under the judicially created doctrine of obvious-type double patenting as being unpatentable over claims 6, 18, 29, 37 and 46 of copending Application No. 10/081,857. The Examiner rejected claims 1-6, 10-18, 22-30 and 39-47 under 35 U.S.C. § 102(b) as being anticipated by Yedid et al. (US 5,526,377). The Examiner rejected claims 7 and 19 under 35 U.S.C. §103(a) as being unpatentable over Yedid et al. (US 5,526,377) in view of Ruelke (US 6,459,889). The Examiner rejected claims 8, 9 and 20, 21 under 35 U.S.C. §103(a) as being unpatentable over Yedid et al. (US 5,526,377) in view of Coker et al. (US 6,625,235). The Examiner rejected claims 31-38 under 35 U.S.C. §103(a) as being unpatentable over Yedid.

Applicants respectfully responds to this Office Action.

Double Patenting

In paragraph 1a of the Office Action mailed July 7, 2005, the Examiner provisionally rejected claims 1-5, 7-17, 19-27, 29-35, 37-44, 46 and 47 as claiming the same invention as that of claims 1-5, 7-17, 19-28, 30-36, 38-45, 47 and 48 of copending Application No. 10/081,857. In paragraph 2a of the Office Action, the Examiner provisionally rejected claims 6, 18, 28, 36 and 45 under the judicially created doctrine of obvious-type double patenting as being unpatentable over claims 6, 18, 29, 37 and 46 of copending Application No. 10/081,857.

Application serial no. 10/081,857, filed February 20, 2002, entitled "Adaptive Filtering With DC Bias Compensation" and assigned to the assignee of the present invention has been

abandoned. Therefore, Application serial no. 10/081,857 is no longer prior art. Thus, claims 1-47 are patentable over the prior art.

35 USC §112 Rejection: Claim 24

The Examiner rejected claim 24 stating that there was no antecedent basis for "the parameter" in line 8 of the claim. "The parameter" in claim 24 has been amended to read --a parameter--.

35 USC §102 Rejections: Claims 1-6, 10-18, 22-30 and 39-47

Claims 1-6, 10-18, 22-30 and 39-47 are rejected under 35 U.S.C. § 102(b) as being anticipated by Yedid et al. (US 5,526,377).

Claims 1, 12, 24, 31 and 39 have been amended to include the following feature:

wherein the adaptation of the filter coefficients comprises using a stochastic steepest descent search algorithm. Support for this feature is found in Paragraph [0034] of the specification. This feature is not disclosed by Yedid. Therefore, amended claims 1, 12, 24, 31 and 39 along with their dependent claims are not anticipated by Yedid.

In addition, claims 3, 15, 25, 33, 42 have been amended to include the following feature:
stochastic steepest descent search algorithm is calculated using the following equation:

$$e(k) = y(k) - C^H(k)Z(k) = y(k) - H(k)^H X'(k) - \alpha \hat{\lambda}^*(k)$$

$$C(k+1) = C(k) + \mu Z(k)e(k)^H = \left\{ \begin{array}{l} H(k+1) = H(k) + \mu X'(k)e(k)^H \\ \lambda(k+1) = \lambda(k) + \mu \alpha e(k)^H \end{array} \right\},$$

where

$$C^H(k) = [H \ \lambda];$$

$$Z(k) = [x'(k) \ \alpha]^H;$$

$e(k)$ is the error, which is the difference between $y(k)$ (known *a priori*) and $\hat{y}(k)$; and

μ is the gain constant (or an adaptation constant). Support for this feature is found in paragraph [0034] of the specification. This feature is not disclosed by Yedid. Therefore, amended claims 3, 15, 25, 33, 42 along with their dependent claims are not anticipated by Yedid. Claims 3, 15, 25, 33 and 42 are also allowable because they each depend on an allowable claim.

With respect to claims 6, 18, 28, and 45, the Examiner states that the features of claim 6 are found in Col. 4, lines 37-58 of Yedid. The Examiner argues that “The symbol values imply that the samples have an average power value. . . . the claimed parameter is employed as a pseudo-symbol, and the fixed value of the parameter is chosen in order to facilitate multiplication with the associated weighting coefficient, implying that its value is substantially equal to the average power value of the associated coefficient. The associated coefficient has a power value that is substantially equal to the square root of the average power value of the samples because the coefficient is derived using a least mean square algorithm.”

Yedid discloses “employing a D.C. reference value as a pseudo-symbol. This D.C. reference pseudo-symbol may have a value between zero and one . . .” col. 4, lines 40-43 of Yedid. Yedid also discloses that “a data constellation may comprise the symbol magnitudes 1 and 3, each having positive and negative polarities to yield the four data symbol values: (-3, -1, +3, +1).” It does not appear from the actual values disclosed in Yedid, that “the fixed value of the parameter is substantially equal to the square root of the average value of the samples” as disclosed in claims 6, 18, 28, and 45. Therefore, claims 6, 18, 28, and 45 are not anticipated by Yedid. Claims 6, 18, 28 and 45 are also allowable because they each depend on an allowable claim.

35 USC §103 Rejections: Claims 7-19, 8, 9 and 20, 21 and 31-38

The Examiner rejected claims 7 and 19 under 35 U.S.C. §103(a) as being unpatentable over Yedid et al. (US 5,526,377) in view of Ruelke (US 6,459,889).

Claims 7 and 19 depend on allowable claims 1 and 12 respectively. Therefore, they are also allowable.

PATENT

The Examiner rejected claims 8, 9 and 20, 21 under 35 U.S.C. §103(a) as being unpatentable over Yedid et al. (US 5,526,377) in view of Coker et al. (US 6,625,235).

Claims 8, 9 and 20, 21 depend on allowable claims 1 and 12 respectively. Therefore, they are also allowable.

The Examiner rejected claims 31-38 under 35 U.S.C. §103(a) as being unpatentable over Yedid.

As stated above, claim 31 has been amended to include the following feature:

wherein the adaptation of the filter coefficients comprises using a stochastic steepest descent search algorithm. Therefore, amended claim 31 along with dependent claims 32-38 are not anticipated by Yedid.

REQUEST FOR ALLOWANCE

In view of the foregoing, Applicant submits that all pending claims in the application are patentable. Accordingly, reconsideration and allowance of this application are earnestly solicited. Should any issues remain unresolved, the Examiner is encouraged to telephone the undersigned at the number provided below.

Dated: _____

10/1/05

Respectfully submitted,

By: _____

Larry J. Moskowitz, Reg. No. 42,911
Tel. 858-651-4556

QUALCOMM Incorporated
5775 Morehouse Drive
San Diego, California 92121
Telephone: (858) 651-4125
Facsimile: (858) 658-2502